

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Adrian P. Stephens

Examiner: Afsar M. Qureshi

Serial No.: 10/736,052

Group Art Unit: 2616

Filed: December 15, 2003

Docket: 884.B49US1

For: DATA DEFINITION APPARATUS, SYSTEMS, AND METHODS

APPEAL BRIEF UNDER 37 CFR § 41.37

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Appeal Brief is presented in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed herewith, from the Final Rejection of claims 1, 2, 4-11, and 13-22 of the above-identified Application, as set forth in the Final Office Action mailed on June 3, 2008.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of \$510.00 which represents the requisite fee set forth in 37 C.F.R. § 41.20(b)(2). The Appellant respectfully requests consideration and reversal of the Examiner's rejections of pending claims.

I. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent Application is the assignee,
INTEL CORPORATION.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals, interferences, or judicial proceedings known to the Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present application was filed on December 15, 2003, 2002 with claims 1-22. A non-final Office Action was mailed January 31, 2008. In response to the non-final Office Action, claims 1, 4-7, 11 and 13-14 were amended, and claims 3 and 12 were canceled by the Appellant. A Final Office Action (hereinafter “the Final Office Action”) was mailed June 3, 2008. Claims 1-2, 4-11 and 13-22 stand twice rejected, remain pending, and are the subject of the present Appeal.

4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action dated June 3, 2008.

5. SUMMARY OF CLAIMED SUBJECT MATTER

This summary is presented in compliance with the requirements of Title 37 C.F.R. § 41.37(c)(1)(v), mandating a “concise explanation of the subject matter defined in each of the independent claims involved in the appeal ...”. Nothing contained in this summary is intended to change the specific language of the claims described, nor is the language of this summary to be construed to limit the scope of the claims in any way.

Independent Claim 1 (FIG. 3; Paragraphs 0021 and 0022)

Some of the embodiments claimed are related to a method (311) including: determining (331, 341) whether a state capable of interpreting a selected data type has been maintained by a receiver; sending (351) the selected data type without self-definition information to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and sending (361) the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.

Independent Claim 11 (FIG. 3; FIG. 4; Paragraphs 0021, 0022, 0029 and 0030)

Some of the embodiments claimed are related to an article (485) including a machine-accessible medium (489) having associated information (491) stored thereon, which when accessed by a machine, results in the machine performing: determining (331, 341) whether a state capable of interpreting a selected data type has been maintained by a receiver; sending (351) the selected data type without self-definition information to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and sending (361) the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.

Independent Claim 15 (FIG. 1; Paragraphs 0013, 0014 and 0016)

Some of the embodiments claimed are related to an apparatus (100) including: a transmitter (114) to selectively send a selected data type (118) to a receiver (122) with or without self-definition information (126); and a determination module (130) to determine whether a state

(134) capable of interpreting the selected data type (118) has been maintained by the receiver (122) after the receiver (122) has been trained to enter the state (134) by the transmitter (114).

Independent Claim 19 (FIG. 1; Paragraphs 0013, 0014, 0015 and 0016)

Some of the embodiments claimed are related to a system (110) including: a transmitter (114) to selectively send a selected data type (118) with or without self-definition information (126); a receiver (122) to receive the selected data type (118); and a determination module (130) to determine whether a state (134) capable of interpreting a selected data type (118) to be sent by the transmitter (114) has been maintained by the receiver (122) after the receiver (122) has been trained to enter the state (134) by the transmitter (114).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and the Appellant refers the reader to each of the appended claims and its legal equivalents for a complete statement of the claimed embodiments of the invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-2, 4-11 and 13-22 stand rejected under 35 USC § 103(a) as being unpatentable over Poon et al. (EP0928084 A2, hereinafter “Poon”) in view of Kobayashi et al. (U.S. 2004/0218627 A1, hereinafter “Kobayashi”).

7. ARGUMENT

A) The Applicable Law under 35 U.S.C. §103(a)

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). As discussed in *KSR International Co. v. Teleflex Inc. et al.* (U.S. 2007), the determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. See *Princeton Biochemicals, Inc. v. Beckman Coulter, Inc.*, 7, 1336-37 (Fed. Cir. 2005). The legal conclusion, that a claim is obvious within § 103(a), depends on at least four underlying factual issues set forth in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966): (1) the scope and content of the prior art; (2) differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art; and (4) evaluation of any relevant secondary considerations.

Therefore, the test for obviousness under §103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir.1985). The Examiner must, as one of the inquiries pertinent to any obviousness inquiry under 35 U.S.C. §103, recognize and consider not only the similarities but also the critical differences between the claimed invention and the prior art. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990). Critical differences in the prior art must be recognized (when attempting to combine references). *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990), *reh'g denied*, 1990 U.S. App. LEXIS 19971 (Fed. Cir.1990).

B) Discussion of the rejection of claims under 35 U.S.C. § 103(a) as being unpatentable over Poon in view of Kobayashi

Claims 1-2, 4-11 and 13-22 stand rejected under 35 USC § 103(a) as being unpatentable over Poon in view of Kobayashi. The Appellant does not admit that Poon or Kobayashi are prior art, and reserves the right to swear behind each of these references in the future. In addition,

since a *prima facie* case of obviousness has not been properly established in each case, the Appellant respectfully traverses these rejections.

Claim 1 reads as follows:

1. A method, comprising:
 - determining whether a state capable of interpreting a selected data type has been maintained by a receiver;
 - sending the selected data type without self-definition information to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and
 - sending the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.

In the “Response to Arguments” section of the Final Office Action, the Office disagrees with the Appellant’s argument filed March 26, 2008, asserting that Poon does not disclose the claimed features “**determining whether a state capable of interpreting a selected data type has been maintained by a receiver**” and “**sending the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver**”.

B.1 Poon Does Not Teach Determining Whether a Receiver State Has Been Maintained

On page 3 of the Final Office Action, the Office states that “one of skill in the art, at the time of invention would have used the 802.11 protocol for *determining whether a state capable to interpreting a selected data type has been maintained by a receiver*”, and “[i]t would be readily clear to one skilled in the art that Poon’s transmitter is capable of *sending the selected data type with the self-definition information to the receiver if the state is capable of interpreting the selected data type has not been maintained by the receiver*”. However, a close reading of Poon reveals that this is incorrect.

The Appellant respectfully submits that the Office misunderstands Poon, and has transformed the teaching of Poon into something which it is not. Poon and claim 1 actually adopt different approaches. Claim 1 operates to determine **whether a receiver maintains a state capable of interpreting a selected data type**, and then based on the determination, the

selected data type is sent to the receiver (for example, by the transmitter) **with or without self-definition information.**

From paragraphs [0013], [0014], [0038], and [0045] of Poon, cited in the Final Office Action, it can be seen that in contrast to what is recited by claim 1, Poon's receiving side host computer detects (or determines) a modulation type of an incoming signal, and then based on the detected modulation type of the incoming signal (rather than a **determination whether a receiver maintains a state capable of interpreting a selected data type**), the host computer reconfigures a demodulator to the expected format. Clearly, the host computer of Poon reconfigures the demodulator to demodulate the incoming signal according to the detected modulation type of the incoming signal, without considering the state of the receive side. Because Poon always operates to reconfigure the demodulator, it does not matter to Poon's host computer whether or not the receive side maintains a state capable of interpreting a selected data type. Accordingly, Poon does not teach each of the elements recited by claim 1.

On page 3, first paragraph, of the Final Office Action, the Office states "*The receiver side host processor enter the state where it determines the modulation format loaded into the header via channel select 73 [0038] and [0045] at the transmitter [0014] and then reconfigures the demodulator accordingly. Therefore **maintaining state capable of interpreting a selected data type.***" (Emphasis added). However, merely determining a modulation format and reconfiguring a demodulator to receive that format does not justify the conclusion by the Office that Poon discloses the feature "**determining whether a state capable of interpreting a selected data type has been maintained by a receiver**" of claim 1.

From the cited paragraphs of Poon, it can be seen that the receiver side host computer detects the format of the incoming signal **by detecting a flag in the header of the incoming data stream indicating modulation type**, assuming one is loaded into the header at the transmit side. However, Poon does not disclose **maintaining a state capable of interpreting a selected data type by a receiver**, and there is no need for this arrangement according to the teachings of Poon, because Poon always detects the format of the incoming signal from the transmit side to reconfigure the demodulator to demodulate the incoming signal.

B.2 Poon Does Not Teach Sending Self-Definition Information That Depends on Determining Whether a Receiver State Has Been Maintained

On page 3, third paragraph, of the Final Office Action, the Office asserts “Poon further discloses that transmitter side universal modem 204 (fig. 13) is software configurable capable of sending data with or without self definition information, It would be readily clear to one skilled in the art that Poon’s transmitter is capable of *sending the selected data type with the self-definition information to the receiver if the state is capable of interpreting the selected data type has not been maintained by the receiver*”. The Appellant respectfully disagrees.

As discussed above, the host computer of Poon at the receive side detects (or determines) the modulation type of the incoming signal, and then based on the detected modulation type of the incoming signal (rather than a determination whether a receiver maintains a state capable of interpreting a selected data type), the host computer reconfigures the demodulator to the expected format. Clearly, the host computer of Poon reconfigures the demodulator to demodulate the incoming signal according to the detected modulation type of the incoming signal, without any consideration for whether *the state capable of interpreting the selected data type has been maintained by the receiver*.

In addition, referring to Fig. 12 of Poon, relied upon by the Office, it can be seen that Poon uses a controller 208 to control the modulation type on both the transmit side 200 and receive side 202 with means provided to sense channel noise and change the modulation type accordingly. Thus, Poon does nothing with respect to maintaining a state capable of interpreting the input signal (a selected data type) for the receiver 202. Accordingly, Poon does not disclose the feature “sending the selected data type with the self-definition information to the receiver if the state capable to interpreting a selected data type has not been maintained by the receiver” of claim 1.

B.3 Poon Combined With Kabayashi Does Not Teach What is Recited in the Independent Claims

In summary, Poon does not disclose “determining whether a state capable of interpreting a selected data type has been maintained by a receiver”, much less “sending the selected data type without self-definition information to the receiver if the state capable of interpreting a selected data type has been maintained by the receiver”, and “sending the

selected data type with the self-definition information to the receiver if the state capable of interpreting a selected data type has not been maintained by the receiver” as recited in claim

1. Poon simply adopts a different approach from what is recited by claim 1.

Kobayashi does not remedy this defect of Poon. Thus, even combined, Poon and Kobayashi do not teach or suggest each and every feature of independent claim 1, and thus do not render independent claim 1 obvious.

This argument also applies to independent claims 11, 15 and 22, and thus, all of the independent claims are nonobvious. Since the cited references do not render these independent claims obvious, these references do not render the associated dependent claims obvious either, because any claim depending from a nonobvious independent claim is also nonobvious. *See* M.P.E.P. § 2143.03.

Accordingly, the Appellant respectfully requests reconsideration of the rejections under 35 USC § 103(a), and allowance of claims 1-2, 4-11 and 13-22.

SUMMARY

For the reasons set forth above, claims 1-2, 4-11 and 13-22 have not been properly rejected under 35 USC § 103(a) as being unpatentable over Poon in view of Kobayashi. Therefore, reversal of the rejections and allowance of the pending claims are respectfully requested. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

SCHWEGMAN, LUNDBERG & WOESSNER, P.A.
P.O. Box 2938
Minneapolis, MN 55402

By Mark V. Muller
Mark V. Muller
Reg. No. 37,509

8. CLAIMS APPENDIX

1. A method, comprising:
 - determining whether a state capable of interpreting a selected data type has been maintained by a receiver;
 - sending the selected data type without self-definition information to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and
 - sending the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.
2. The method of claim 1, further comprising:
 - training the receiver to enter the state capable of interpreting the selected data type.
4. The method of claim 1, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:
 - determining that the receiver has not received a communication from another transmitter after the receiver has been trained to enter the state capable of interpreting the selected data type by a training transmitter.
5. The method of claim 1, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:
 - determining that no transmitter other than a training transmitter is capable of communicating with the receiver.
6. The method of claim 1, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:
 - determining whether a transmission of information from a transmitter other than a training transmitter has been directed to the receiver.

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7. The method of claim 1, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:
determining that the receiver is operating in accordance with a protocol that prohibits communication with a transmitter other than a training transmitter until the training transmitter indicates that a communication session between the training transmitter and the receiver is terminated.
8. The method of claim 1, wherein the protocol is an Institute of Electrical and Electronics Engineers (IEEE) 802.11 protocol.
9. The method of claim 1, wherein the self-definition information is included in a packet header.
10. The method of claim 1, wherein the self-definition information indicates at least one of a multicarrier transmission technique, a modulation, a code rate, a code type, a power, and a beam-forming parameter.
11. An article comprising a machine-accessible medium having associated information, wherein the information, when accessed, results in a machine performing:
determining whether a state capable of interpreting a selected data type has been maintained by a receiver;
sending the selected data type without self-definition information to the receiver if the state capable of interpreting the selected data type has been maintained by the receiver; and
sending the selected data type with the self-definition information to the receiver if the state capable of interpreting the selected data type has not been maintained by the receiver.
13. The article of claim 11, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:

determining, by an access point, that no information will be communicated to the receiver except by the access point.

14. The article of claim 11, wherein determining whether the state capable of interpreting the selected data type has been maintained by the receiver further comprises:

determining that control of a communications channel used by the receiver and a training transmitter has not been released by the training transmitter.

15. An apparatus, comprising:

a transmitter to selectively send a selected data type to a receiver with or without self-definition information; and

a determination module to determine whether a state capable of interpreting the selected data type has been maintained by the receiver after the receiver has been trained to enter the state by the transmitter.

16. The apparatus of claim 15, further comprising:

a memory to store the self-definition information.

17. The apparatus of claim 15, wherein the self-definition information indicates at least one of a multicarrier transmission technique, a modulation, a code rate, a code type, a power, and a beam-forming parameter.

18. The apparatus of claim 15, wherein the selected data type is sent to the receiver by the transmitter as a series of frames.

19. A system, comprising:

a transmitter to selectively send a selected data type with or without self-definition information;

a receiver to receive the selected data type; and

a determination module to determine whether a state capable of interpreting a selected data type to be sent by the transmitter has been maintained by the receiver after the receiver has been trained to enter the state by the transmitter.

20. The system of claim 19, further comprising:

an omnidirectional antenna capable of being coupled to the receiver.

21. The system of claim 19, further comprising:

a memory included in the receiver to store an indication of the state.

22. The system of claim 19, wherein the selected data type is sent to the receiver by the transmitter as a series of adaptively modulated packets.

9. EVIDENCE APPENDIX

None.

10. RELATED PROCEEDINGS APPENDIX

None.